

Step 5: Finishing

When to finish. Immediately after all the bleed water is gone is the proper time to finish. If hand tooled, cut control joints while the concrete is still plastic and then edge.

Final Finish. A broom finish is recommended on driveways, walks, ect. Where a smooth finish is recommended for garage floors and patios. Machine floating or troweling is not recommended.

Step 6: Curing

Need for curing. Curing is one of the most important steps in concrete construction. Effective curing is absolutely essential for surface durability. Fresh concrete must be kept warm and moist until the mixing water combines chemically with the cement. That is what hardens the concrete and gives it strength. **Without proper curing the 4000 psi**

Steps to extend the life of your investment!

1. Do not drive on fresh concrete for 7 Days.
2. Protect your new concrete from drain water so it cannot undermine the slab and cause settlement cracks.
3. In the first winter Do Not use salt or other deicers Especially if not sealed.
4. Seal the work! This will prolong the work substantially!



**Spadafora
Custom
Concrete**



Contact 412-518-0404 for service.

Guidelines For Durable;
Driveways, Carports,
Patios, Walks, and
Garage Floors.





Concrete Durability

Concrete Durability is the ability to resist weathering action, chemical attack, abrasion or any other process of deterioration. Durable Concrete will retain its original form, quality and serviceability when exposed to its environment.

Step 1: Planning

Thickness: 5 inches is generally enough unless heavy trucks will park on it regularly. To be safe we usually go with 6 inches to ensure quality work that can last in the unpredictable Pittsburgh environment. (Driveways)

Base: Firm, sound subsoil is an entirely adequate base for residential locations. At Spadafora Concrete we always use a gravel sub base to ensure a strong foundation.

Reinforcement: Wire Mesh is not necessary in residential slabs - on - grade when proper joint spacing and subgrade procedures are followed. We include wire mesh to ensure durability.

Drainage: Surface of the finished slab should slope a minimum of 1/8th in. per foot. 1/4th per foot is the preferred.

Step 2: Preparation

Excavating: Be sure to take out all organic matter - sludge, leaves, tree roots, wood, etc. Do not dig deeper than you need to.

Compaction: Subsoil on which concrete is to be placed must be compacted uniformly and evenly so the slab will not settle and will not vary in thickness.

Forms: Stake securely. Scrape base away from the forms so edges will be at least full thickness, because if edges are thinner cracks could start at the edge and work their way through the slab.

Isolation: Before the concrete is delivered, install premolded joint material whenever flatwork comes against the building, steps, walls and existing slabs.

Moistening: Shortly before placing the concrete, wet the forms and subgrade. Do not over wet the subgrade or spread plastic under the slab. That forces extra water in the concrete to escape through the top and weakens the surface.

Step 3: Specifications For Concrete

Strength. A durable concrete mix design must be a minimum 4000-psi at 28 day.

Air. Air content when placed 6.5 % +/- 1.5% or 5% to 8%.

Slump: Slumps should be 4 inch and the slump should not exceed 5 in. for durable concrete. Anything more than 6 in. is entirely too wet to use.

Aggregates. Use clean sound aggregates.

Step 4: Placing

Addition of water. Water should be added at job site. Adding water dilutes the mixture to less than its desired strength. When adding water make sure to add all at once and mix at full speed.

All concrete should be placed within 90 minutes from the time truck was loaded. In hot weather this time is shortened to prolong durable concrete.